Study questions value of common knee surgery

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Procedure to repair a torn meniscus worked no better than a fake one to ease lingering pain.

(HealthDay)—Improvements in knee pain following a common orthopedic procedure appear to be largely due to the placebo effect, a new Finnish study suggests.

The research, which was published Dec. 26 in the *New England Journal of Medicine*, has weighty implications for the 700,000 patients who have arthroscopic surgery each year in the United States to repair a torn meniscus. A meniscus is a C-shaped pad of cartilage that cushions the knee joint.

For a meniscal repair, orthopedic surgeons use a camera and tiny instruments inserted through small incisions around the knee to shave

damaged tissue away. The idea is that clearing sharp and unstable debris out of the joint should relieve pain.

But mounting evidence suggests that, for many patients, the procedure just doesn't work as intended.

"There have been several trials now, including this one, where surgeons have examined whether meniscal tear surgery accomplishes anything, basically, and the answer through all those studies is no, it doesn't," said Dr. David Felson, a professor of medicine and public health at Boston University. He was not involved in the new research.

For the new study, doctors recruited patients between the ages of 35 and 65 who'd had a meniscal tear and knee pain for at least three months to have an arthroscopic procedure to examine the knee joint. If a patient didn't also have arthritis, and the surgeon viewing the knee determined they were eligible for the study, he opened an envelope in the operating room with further instructions.

At that point, 70 patients had some of their damaged meniscus removed, while 76 other patients had nothing further done. But surgeons did everything they could to make the sham procedure seem like the real thing. They asked for the same instruments, they moved and pressed on the knee as they otherwise would, and they used mechanical instruments with the blades removed to simulate the sights and sounds of a meniscal repair. They even timed the procedures to make sure one wasn't shorter than the other. Patients weren't told if they'd had their knee repaired or not.

"It's a wonderfully designed study, amazing," said Felson.

Both groups improved after surgery. Remarkably, those who'd had the sham procedure reported improvements in pain and function that were

nearly identical to those who'd had actual meniscal repairs. Average improvement for both groups ranged from about 20 to 30 points on 100-point pain scales.

What's more, most patients in both groups were satisfied with their results. The study found 77 percent in the surgery group said they were happy with the outcome versus 70 percent who had nothing done, and 89 percent in the surgery group reported improvement in their knee pain compared to 83 percent in the placebo group. Nearly all said they'd be willing to repeat the procedure again—93 percent of the surgery group versus 96 percent of those who'd had the fake procedure.

"I'm expecting a roar from the orthopedic community. This is the most common orthopedic procedure," said study author Dr. Teppo Jarvinen, a resident in the department of orthopedics and traumatology at Helsinki University Central Hospital in Finland.

"I don't expect people to be happy about somebody showing that the stuff that they had been doing isn't any better than a sham procedure, but what can I do? That's the evidence," he said.

A study published in the same journal in March found that surgery was no better for knee pain than physical therapy for patients with more advanced disease—those with meniscal tears who also had osteoarthritis.

Despite the latest round of discouraging results, several experts said it was important not to overgeneralize the latest findings.

"I think we should be careful making the blanket conclusion that there's no role for meniscus surgery," said Dr. Scott Rodeo, an attending orthopedic surgeon at the Hospital for Special Surgery in New York City.

Rodeo said he thought meniscal repair could still be helpful for patients who experience mechanical symptoms like clicking and catching when they move their knee.

And Felson said meniscal repairs might still be useful for people who suddenly injure their knees, like those who play sports.

But for those who have knee pain that comes on gradually and lingers without relief, Felson said medical treatment with physical therapy and anti-inflammatory medication appears to be the best option.

"I think that's what you do," he said.

More information: The U.S. National Institute of Arthritis and Musculoskeletal and Skin Diseases has more on knee pain and knee surgery.

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